

**REMARKS****INTRODUCTION:**

In accordance with the foregoing, claims 1, 4, 5, 34, 41 and 44 have been amended and claims 46-49 have been added. No new matter is being presented, and approval and entry are respectfully requested. Therefore, claims 1, 2 and 4-49 are pending and reconsideration of claims 1, 2, 4, 5, 10, 34, 39-41, 43 and 44 is requested.

**RCE SUBMISSION:**

This Preliminary Amendment is being submitted with the RCE filed on \_\_\_\_\_ and is believed to render the application allowable as discussed below.

**REJECTION UNDER 35 U.S.C. § 102:**

In the Office Action, claims 1, 2 and 4 were rejected under 35 U.S.C. 102(b) as anticipated by Mizuta (U.S. Patent No. 5,687,048). These rejections are traversed.

Regarding the rejections of claims 1 and 4, it is noted that both claims recite "a protrusion group having a plurality of protrusions each protruding therefrom and toward the disk." Thus, it is submitted that the claims inherently distinguish between the "a protrusion group" and the "a plurality of protrusions." In other words, according to the claims, the claimed protrusion group is a structure in and of itself, whereas the claimed plurality of protrusions, which protrude from the protrusion group, would represent a wholly separate set of structures protruding from the protrusion group.

This is in stark contrast to the disclosure of Mizuta. Here, a plurality of recesses and protruding portions are formed in the inner surface of the disk shell. As shown in FIGS. 1, 4, and 6, unlike the claimed invention, the recesses and protruding portions are not recessed into or protruding from a separate structure so much as that they are recessed into and protrude from the inner surface of the disk shell.

To draw a comparison then to the claimed invention, the disclosure of Mizuta describes an arrangement that would be akin to the claimed plurality of protrusions protruding from the case housing. Applicants submit that this interpretation of the claimed invention is clearly unreasonable since the language of the claims recite specifically that the plurality of protrusions protrude from the protrusion group.

Therefore, it is asserted claims 1 and 4 are patentably distinguished from the reference

and that, thus, the rejections are overcome.

Regarding the rejection of claim 2, it is noted that since claim 2 depends from claim 1, the rejection of claim 2 is also overcome.

Claims 5, 34, 41, and 44 were rejected under 35 U.S.C. 102(b) as anticipated by Iwaki (U.S. Patent No. 5,969,917). These rejections are traversed.

Regarding the rejections of claim 5, the claim recites a protrusion group having a plurality of protrusions each protruding toward the disk and formed on an inner wall of at least one of the case and the shutter and that the protrusion group includes protrusion groups arranged in a stepped manner in a radial direction of the disk. Thus, not only does this claim draw the distinction between the protrusion group and the plurality of protrusions, discussed above, but it also includes a recitation that protrusion groups, as opposed to the protrusions themselves, are arranged in a stepped manner in a radial direction of the disk.

In contrast, the reference to Iwaki discloses rib-like protrusions 35a-c formed on the inner side of the lower cartridge half 13. Here, although the reference suggests that the rib-like protrusions are features of the rib-like protrusion 23 such that the rib-like protrusion 23 would appear to correspond to the claimed protrusion group, in fact, this is not the case. Rather, the rib-like protrusion 23 serves as a mere designation of the grouping of the rib-like protrusions 35a-c as opposed to a structure in and of itself. See FIGS 4 and 10 of Iwaki to compare and note that the rib-like protrusions 35a-c protrude from the lower cartridge half 13 as shown in FIG 10.

In other words, Iwaki would have had to disclose that the rib-like protrusion 23, in fact, referred to three separate rib-like protrusions 23 at least one of which being the supporting structure of the rib-like protrusions 35a-c such that each of the rib-like protrusions 35a-c protrude therefrom. This is clearly not the case. Furthermore, even if this were true, the Examiner would then have to show that the rib-like protrusions 23 were arranged in a "stepped manner in a radial direction of the disk." According to FIG. 4 of Iwaki, however, it is clear that the rib-like protrusion 23 forms a "W" arrangement with respect to the radial direction of the disk.

Meanwhile, assuming that the Examiner intended to suggest that FIG. 10 of Iwaki illustrates that the rib-like protrusions 35a-c are arranged in a "stepped manner in a radial direction of the disk," and noting that this disclosure fails to take into account the recitation of "a protrusion group having a plurality of protrusions each protruding toward the disk," applicants additionally note that the arrangement illustrated in FIG. 10 illustrates that the rib-like protrusions 35a-c "are set so that the heights i1 to i3 thereof will be progressively increased along the

direction of disc rotation." Thus, Iwaki itself suggests that the reference does not disclose that the rib-like protrusions are arranged in a "stepped manner in a radial direction of the disk."

Therefore, it is asserted claim 5 is patentably distinguished from the reference and that, thus, the rejection of claim 5 is overcome.

Regarding the rejection of claim 41, it is noted that since claim 41 recites that the protrusion group includes several protrusion parts arranged in a radial direction of the disk in a stepped manner, that the defects of Iwaki relative to the recitation of "the protrusion group includes protrusion groups arranged in a stepped manner in a radial direction of the disk," in claim 5, remain in effect with reference to claim 41.

Regarding the rejections of claims 31 and 44, it is noted that since these claims recite at least one protrusion group having a plurality of protrusions each protruding therefrom and toward the disk, that the defects of Iwaki relative to the recitation of "a protrusion group having a plurality of protrusions each protruding therefrom and toward the disk," in claim 5, remain in effect with reference to claims 31 and 44.

Therefore, it is asserted claims 31, 41 and 44 are patentably distinguished from the reference and that, thus, the rejections of claims 31, 41 and 44 are overcome.

Claim 34 and 43 were rejected under 35 U.S.C. 102(b) as anticipated by Leonard (U.S. Patent No. 4,885,652). These rejections are traversed.

Regarding the rejection of claim 34, it is noted that claim 34 recites "at least one protrusion group having a plurality of protrusions each protruding therefrom and toward the disk, the protrusion group being formed within said case, and being positioned in parallel linearly in the radial direction of the disk." Since the reference to Leonard discloses a device with substantially similar defects as that of both Mizuta and Iwaki, it is asserted that claim 34 is patentably distinguished from Leonard for substantially the same reasons as set forth above. Therefore, the rejection of claim 34 is overcome.

Regarding the rejection of claim 43, it is noted that since claim 43 depends from claim 34, the rejection of claim 43 is also overcome.

**NEWLY ADDED CLAIMS 46-49:**

Applicants note that claim 46 has been added and recites a disk cartridge comprising a case to house an information recording and/or reproduction medium, a shutter, which is installed

on the case, to be selectively opened and closed so as to provide access for a recording and/or reproduction apparatus to the medium, and a plurality of protrusions, attached to at least one of the case and/or the shutter, to protrude toward the medium so as to create a sinusoidal air pressure profile having an initially increasing and then decreasing amplitude in the outward radial direction of the medium on the surface of the medium. Since the prior art does not disclose creating a sinusoidal air pressure profile having an initially increasing and then decreasing amplitude in the outward radial direction of the disk on the surface of the medium, applicants assert that claim 46 is allowable.

Further, claims 47-49 are allowable based on their dependence upon claim 46 and because these claims recite additionally patentable subject matter. For example, claim 48 recites that the protrusions form a surface having a sinusoidal shape with a frequency that increases in the outward radial direction of the medium. This subject matter is not disclosed by the prior art.

**CONCLUSION:**

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited. At a minimum, this Amendment should be entered at least for purposes of Appeal as it either clarifies and/or narrows the issues for consideration by the Board.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

If there are any additional fees associated with the filing of this Response, please charge the same to our Deposit Account No. 50-3333.

Respectfully submitted,  
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